ABSTRACT OF THE DISCLOSURE

A transaction switch and integrated circuit incorporating said for switching data through a shared memory between a plurality of data interfaces that support

5 different data protocols, namely packetized interfaces like InfiniBand and addressed data interfaces like PCI. The transaction switch also switches transactions commanding data transfers between the disparate protocol data interfaces and between those of the data interfaces having

10 like protocols. For example, the transaction switch enables a hybrid InfiniBand channel adapter/switch to perform both InfiniBand packet to local bus protocol data transfers through the shared memory as well as InfiniBand packet switching between the multiple InfiniBand interfaces. The

15 transactions are tailored for each interface type to include information needed by the particular interface type to perform a data transfer. The shared buffer memory, dynamically allocated by the transaction switch on a first-come-first serve basis, results in more efficient use of

20 precious buffering resources than in a statically allocated scheme.